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Jonathan O. Owens
HAVERSTOCK & OWENS LLP
162 North Wolfe Road
Sunnyvale, CA 94806

EXAMINER

CHEA, PHILIP J

ART UNIT	PAPER NUMBER
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2153

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/673,020	Applicant(s) VU ET AL.	
	Examiner PHILIP J. CHEA	Art Unit 2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,12-19,21-37 and 39-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,12-19,21-37 and 39-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office Action is in response to an Amendment filed June 2, 2008. Claims 1,3-10,12-19,21-37,39-47 are currently pending, of which claims 44-47 are new. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1,3-9,19,21-27,37,39-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The body of claims 1,19,37,44, appear to be claiming software components i.e. software per se. That is, applications, a network layer, and an extension layer are performed by software instructions. On page 8, lines 23-27 of Applicant's specification, the Examiner believes that one of ordinary skill in the art would consider program instructions to mean software. The Examiner invites the Applicant to claim a processor in the body of the claim for performing the steps of the program instructions in order to overcome this rejection. Any claim not specifically mentioned is rejected by virtue of being dependent on a rejected claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,3-10,12-19,21-37,39-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tischer (US 7,404,142), and further in view of Han et al. (US 2002/0143819), herein referred to as Han.

As per claims 28,1, Tischer discloses a network comprising:

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one or more network devices (see Fig. 1, *showing one or more network devices connected to network [150]*); and

a first network device coupled to the one or more other network devices (see Fig. 1 [164] *showing first network device as server and one or more other network devices [168] as clients*), the first network device comprising:

one or more applications (see column 3, lines 40-41, *showing one or more applications such as email server and web page server*);

a network layer coupled to interface with the one or more other network devices (see column 3, lines 39-40, *describing network layer such as Internet, local area network or wide area network*);

a communications layer (see column 3, lines 37-39, *describing how server communicates with other computing devices over the network implying a communications layer*);

an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for the data content (see column 3, lines 54-59, *describing document type definitions to define a hierarchical structure for sets of digital content items*) and metadata corresponding to the hierarchical data content structure (see column 4, lines 13-20, *describing meta data tags to describe the hierarchical data content*), further wherein the hierarchical data content structure comprises a plurality of channels to store information (see column 5, lines 14-23, *describing channels to store information about the content, such as "Restaurant", "Italian", etc.*).

Although the system disclosed by Tischer shows substantial features of the claimed invention (discussed above), it fails to disclose the communication layer providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Tischer, as evidenced by Han.

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In an analogous art, Han discloses disseminating Web services and other resources from service and content providers to service consumers and for establishing and implementing a subscription agreement which specifies the terms upon which digital assets are provided to the subscribing customers (see Abstract). Han further discloses a communications layer to provide a communications protocol to manage data content exchange between the first network device and the one or more other network devices (see paragraph 145, *showing how the ICE protocol is used to manage content exchange between content and service providers to consumers*).

Given the teaching of Han, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Tischer by employing a communications protocol such as ICE to manage data content exchange, such as disclosed by Han, in order to conform to the industry-standard of subscriptions and allow not only traditional content but also web services and other kind of dynamically executed services.

As per claims 3,12,21,30,39 Tischer further discloses wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel (see Tischer column 5, lines 5-10, *showing channels for "restaurant" and sub-channel for "italian", where the "italian" sub-channel is related to a "restaurant" and more specific to the "restaurant" channel*).

As per claims 4,13,22,31,40, Tischer further discloses wherein the metadata defines attributes associated with the each channel within the plurality of channels and the content sub-channel of the one or more content-sub-channels within the hierarchical data content structure (see Tischer column 5, lines 5-10, *showing metadata tags to define attributes such as "business category" for channel, "restaurant category" for sub-channel, etc*).

As per claims 5,14,23,32,41, Tischer further discloses a first data content is associated with a first channel and a first content sub-channel within the first channel (see Tischer column 5, lines 5-10, *where first data is "restaurant" and sub-channel is "Italian"*).

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As per claims 6,15,24,33,42, Tischer further discloses that the first data content is associated with the first channel and the first content sub-channel is according to a subject-matter of the first data content, specific subject-matter of the first channel and more specific subject-matter of the first content sub-channel (see Tischer column 5, lines 5-10, *showing channels for "restaurant" and sub-channel for "italian", where the "italian" sub-channel is related to a "restaurant" and more specific to the "restaurant" channel*).

As per claims 7,16,25,34, Han further discloses that the communications layer comprises an Information and Content Exchange protocol (see paragraph 145).

As per claims 8,17,26,35, Han further discloses that the Information and Content Exchange protocol includes document type definitions and document type definition extensions provide extensions to the document type definitions of the Information and Content Exchange protocol (see Han paragraph 51, *describing service definition data used in order to set up the resources used between the server and client* see paragraph 50 and Han also describes in paragraph 147, *that the ICE protocol is used to perform a subscription process to subscribe to those resources*).

As per claims 9,18,27,36,43, Han further discloses that the document type definition extensions are extensible markup language (XML)-based (see paragraph 51).

As per claims 10,19, Tischer in view of Han disclose a method of providing data content between a first network device and one or more other network devices, the method comprising:

providing a communications protocol to manage data content exchange between the first network device and the one or more other network devices (see Han paragraph 145, *showing how the ICE protocol is used to manage content exchange between content and service providers to consumers*);

providing document type definition extensions to the communications protocol, wherein the document type definition extensions define a hierarchical data content structure for the data content and metadata corresponding to the hierarchical data content structure (see Tischer column 3, lines 54-59, *describing document type definitions to define a hierarchical structure for sets of digital content items* and Tischer column 4, lines 13-20, *describing meta data tags to describe the hierarchical data content*);

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configuring the hierarchical data content structure into a plurality of channels to store information (see Tischer column 5, lines 14-23, *describing channels to store information about the content, such as "Restaurant", "Italian", etc*); and

transmitting the data content between the first network device and the one or more other network devices according to the communication protocol and the document type definition extensions to the communications protocol (see Tischer column 3, lines 37-41 and lines 52-59, *describing the server providing e-mails, web pages and other data and client computer reading in a structure file according to the document type definition and communication protocol*).

As per claim 37, Tischer in view of Han disclose a network device coupled to a network of devices, the network device comprising:

one or more applications (see Tischer column 3, lines 40-41, *showing one or more applications such as email server and web page server*);

a network layer coupled to interface with the one or more other network devices (see Tischer column 3, lines 39-40, *describing network layer such as Internet, local area network or wide area network*);

an Information and Content Exchange protocol including document type definitions to manage data content exchange between the network device and the one or more other network devices (see Han paragraph 145, *showing how the ICE protocol is used to manage content exchange between content and service providers to consumers*); and

extensions to the document type definitions, wherein the document type definition extensions define a hierarchical data content structure for the data content (see Tischer column 3, lines 54-59, *describing document type definitions to define a hierarchical structure for sets of digital content items*) and metadata corresponding to the hierarchical data content structure (see Tischer column 4, lines 13-20, *describing meta data tags to describe the hierarchical data content*), further wherein the hierarchical data content structure comprises a plurality of channels to store information (see Tischer column 5, lines 14-23, *describing channels to store information about the content, such as "Restaurant", "Italian", etc*).

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As per claim 44, Tischer in view of Han disclose a network device coupled to a network of devices, the network device comprising:

one or more applications (see Tischer column 3, lines 40-41, *showing one or more applications such as email server and web page server*);

a network layer coupled to interface with the one or more other network devices (see Tischer column 3, lines 39-40, *describing network layer such as Internet, local area network or wide area network*);

a communications layer to provide a communication protocol to manage data content exchange between the network device and the one or more network devices (see Han paragraph 145, *showing how the ICE protocol is used to manage content exchange between content and service providers to consumers*);

an extension layer to provide document type definition extensions to the communications layer, wherein the document type definition extensions define a hierarchical data content structure for the data content (see Tischer column 3, lines 54-59, *describing document type definitions to define a hierarchical structure for sets of digital content items*) and metadata corresponding to the hierarchical data content structure (see Tischer column 4, lines 13-20, *describing meta data tags to describe the hierarchical data content*), further wherein the hierarchical data content structure comprises a plurality of channels (see Tischer column 5, lines 14-23, *describing channels to store information about the content, such as "Restaurant", "Italian", etc*), wherein each channel within the plurality of channels includes one or more content sub-channels, wherein each channel within the plurality of channels provides data content of a related subject-matter and each content sub-channel of the one or more content sub-channels within a given channel segments the data content within the given channel according to more specific subject-matter than subject-matter of the given channel (see Tischer column 5, lines 5-10, *showing channels for "restaurant" and sub-channel for "italian", where the "italian" sub-channel is related to a "restaurant" and more specific to the "restaurant" channel*), wherein the metadata defines attributes of each of the plurality

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of channels, each of the sub-channels and each of the data content (see Tischer column 5, lines 5-10, *showing metadata tags to define attributes such as "business category", "restaurant category", etc*).

As per claim 45, Tischer further discloses metadata associated with each channel of the plurality of channels includes a title, a caption, an icon-url, an ice-element and an item-group-id (see column 3, line 63 – column 4, line 9, *where the title is "phonebook", a caption is "restaurant" an ice-element is "dtdfile", an item-group-id is "business category", and an icon-url is considered digital content item found in column 4, lines 39-44*).

As per claim 46, Tischer further discloses that the metadata associated with each content sub-channel includes a title, a caption, a priority, an icon-url, an ice-element and an item-group-id (see column 5, lines 5-10, *where a title is "restaurant" a caption is "italian" an ice-element is "xml file" an item-group-id is "business category" and an icon-url is considered digital content item found in column 4, lines 39-44, and priority is considered a preference counter in the DTD that gives priority to a certain category over others based on how many times a user has selected the item see column 10, lines 17-37 and column 10, line 64 – column 11, line 6*).

As per claim 47, Tischer discloses that the metadata associated with each data content includes a size, an ice-element and an item-id (see column 7, lines 23-29, *describing a style definition applied to the category name for the size of the font and column 6, lines 5-10, showing an ice-element of "xml file" and item-id of "Italian restaurant"*) and Han discloses metadata including content data of a url (see page 13, Table 1, "url used to access service"). One of ordinary skill in the art would have found it obvious to include a url meta tag in order to locate the particular service offered by the server on the web such as disclosed by Han.

Response to Arguments

4. Applicant's arguments with respect to claims 1,3-10,12-19,21-37,39-47 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP J. CHEA whose telephone number is (571)272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Philip J Chea
Examiner
Art Unit 2153

/Philip J Chea/
Examiner, Art Unit 2153
8/20/08